Detecting Recessive Diseases in Inbred Populations Conway 208.1005.01 1 of 5 Title:

Inventor: Docket: Sheet:

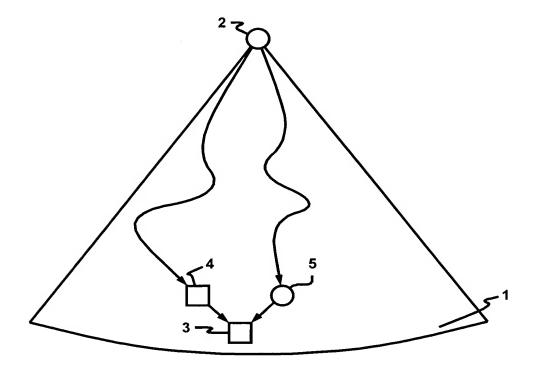


FIG. 1

Detecting Recessive Diseases in Inbred Populations Title:

Conway 208.1005.01 Inventor: Docket: Sheet: 2 of 5

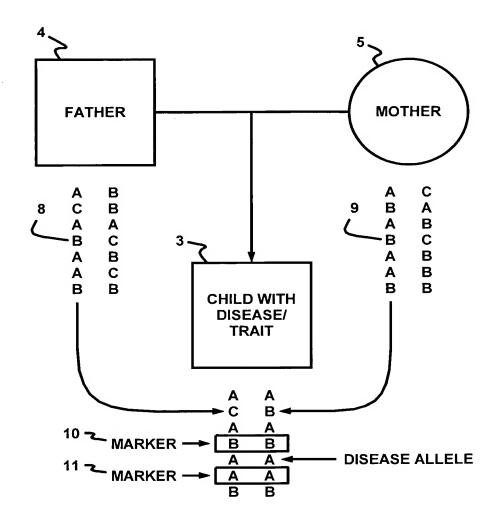


FIG. 2

Title: Detecting Recessive Diseases in

Inbred Populations

Inventor: Conway
Docket: 208.1005.01
Sheet: 3 of 5

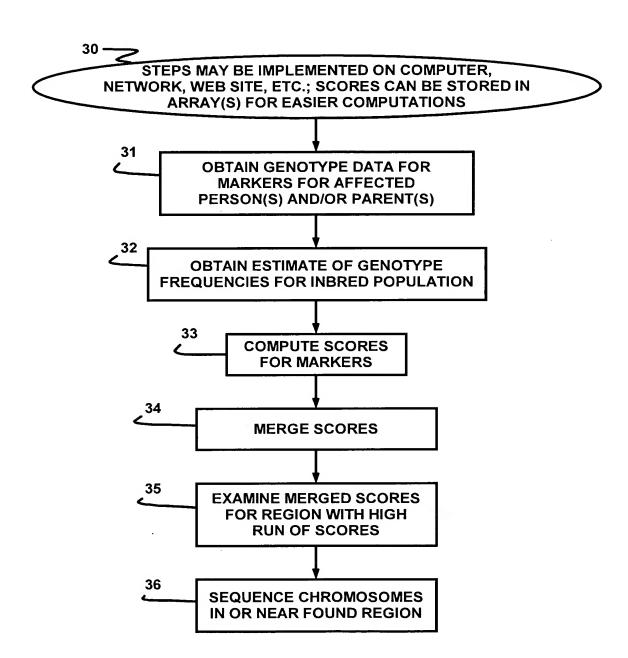


FIG. 3

Title:

Inventor: Docket: Sheet:

Detecting Recessive Diseases in Inbred Populations Conway 208.1005.01 4 of 5

0,000	Assumb	Assumption for Affected Person	Person	Null Hypothesis
Observed	Autozygous A	Autozygous A Autozygous B	Autozygous C	Not Autozygous
Affected AA	(1-e)+ep ²	e p ²	e p ²	(1-e) p _A p _M +ep _A ²
Affected AB	2ep p	2eppB	2eppB	(1-e) $(p_A^F p_B^M + p_B^F p_A^M)$ +2ep_B
Parent AA	(1-e) p/(2-p _A) +e p _A ²	ep ²	e p ²	p ²
Parent AB	(1-e) $2p_{A}/(2-p_{A})$ (1-e) $2p_{A}/(2-p_{B})$ + $2ep_{A}p_{B}$ + $2ep_{A}p_{B}$	(1-e) 2 p/(2-p) +2e p p	2ep p	2p p

Title:

Detecting Recessive Diseases in Inbred Populations Conway 208.1005.01 5 of 5 Inventor: Docket: Sheet:

MARKER 1	AFFECTED PERSON 1	MOTHER OF PERSON 1	FATHER OF PERSON 1	AFFECTED PERSON 2			
41	PROBABILITY AUTOZYGOUS A	PROBABILITY AUTOZYGOUS A	PROBABILITY AUTOZYGOUS A	PROBABILITY AUTOZYGOUS A			
43	PROBABILITY AUTOZYGOUS B	PROBABILITY AUTOZYGOUS B	PROBABILITY AUTOZYGOUS B	PROBABILITY AUTOZYGOUS B	•••		
44	PROBABILITY AUTOZYGOUS C	PROBABILITY AUTOZYGOUS C	PROBABILITY AUTOZYGOUS C	PROBABILITY AUTOZYGOUS C			
تر	PROBABILITY NOT AUTOZYGOUS	PROBABILITY NOT AUTOZYGOUS	PROBABILITY NOT AUTOZYGOUS	PROBABILITY NOT AUTOZYGOUS			
MARKER 2	, AFFECTED PERSON 1	MOTHER OF PERSON 1	FATHER OF PERSON 1	AFFECTED PERSON 2			
	PROBABILITY AUTOZYGOUS A	PROBABILITY AUTOZYGOUS A	PROBABILITY AUTOZYGOUS A	PROBABILITY AUTOZYGOUS A			
	PROBABILITY AUTOZYGOUS B	PROBABILITY AUTOZYGOUS B	PROBABILITY AUTOZYGOUS B	PROBABILITY AUTOZYGOUS B	•••		
	PROBABILITY AUTOZYGOUS C	PROBABILITY AUTOZYGOUS C	PROBABILITY AUTOZYGOUS C	PROBABILITY AUTOZYGOUS C			
	PROBABILITY NOT AUTOZYGOUS	PROBABILITY NOT AUTOZYGOUS	PROBABILITY NOT AUTOZYGOUS	PROBABILITY NOT AUTOZYGOUS			
MARKER 3	AFFECTED PERSON 1	MOTHER OF PERSON 1	FATHER OF PERSON 1	AFFECTED PERSON 2			
	PROBABILITY AUTOZYGOUS A	PROBABILITY AUTOZYGOUS A	PROBABILITY AUTOZYGOUS A	PROBABILITY AUTOZYGOUS A			
	PROBABILITY AUTOZYGOUS B	PROBABILITY AUTOZYGOUS B	PROBABILITY AUTOZYGOUS B	PROBABILITY AUTOZYGOUS B	•••		
	PROBABILITY AUTOZYGOUS C	PROBABILITY AUTOZYGOUS C	PROBABILITY AUTOZYGOUS C	PROBABILITY AUTOZYGOUS C			
	PROBABILITY NOT AUTOZYGOUS	PROBABILITY NOT AUTOZYGOUS	PROBABILITY NOT AUTOZYGOUS	PROBABILITY NOT AUTOZYGOUS			
•	•						

FIG. 5